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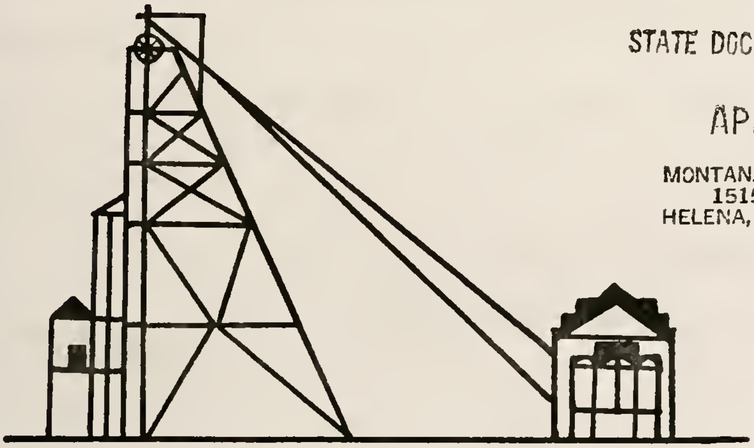

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CULTURAL RESOURCE INVENTORY AND EVALUATION

of

The Frame Mine and the Ridge Top Howler Sites
in Chouteau County, Montana

for

THE MONTANA DEPARTMENT OF STATE LANDS
1625 - 11th Avenue
Helena, Montana 59601

by

Paul Anderson

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CULTURAL RESOURCE INVENTORY AND EVALUATION

of the

Frame Mine and Ridge Top Howler Ring Site in the Big Sandy Coal Field of Montana

for

THE MONTANA DEPARTMENT OF STATE LANDS
1625 - 11th Avenue
Helena, Montana 59601

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Paul Anderson

Cultural Resource Division
GCM Services, Inc.
P. O. Box 3047
Butte, Montana 59702

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INTRODUCTION

In November of 1985 GCM Services, Inc., in Butte, Montana was contracted by the Montana Department of State Lands (DSL) to perform a cultural resource inventory and evaluation of selected abandoned coal and hardrock mines in Montana.

This report presents the results of the inventory of the Frame Mine and the Ridge Top Howler ring site in the Big Sandy Coal field a few miles east of the town of Big Sandy (Figure 1).

The report should be included as a supplement to the Cultural Resource Inventory and Evaluation of the Mack/Nygard, Larsen/Hubbs, Ayars/Jackson/Hoppe/Alcott/Gussenhoven/Wieck Complex, Havre Coal Mining Company, Milk River/Perkins, Cummings, Burns and Rader/Dehl/Radkop Mines in the Big Sandy and Milk River Coal Fields of Montana for the Montana Department of State Lands, Paul Anderson, GCM Services, Inc., March 1984. Much of the background material from the above report has been included in this inventory and evaluation of the Frame mine and Ridge Top Howler ring site for the convenience of the reader.

In the interest of public safety and health, the DSL, as part of its abandoned mines reclamation project, plans to permanently seal the mine openings, remove hazardous structures and either remove or reclaim coal waste dumps.

The following report describes the physical setting, historic background and present condition of the Frame Mine site (24CH557). A description and evaluation of the adjacent Ridge Top Howler ring site (24CH556) is also included. An evaluation of each site's potential eligibility for the National Register of Historic Places and a summary of projected impacts to the sites are also given.

Official site inventory forms are on file in the state site files at the Department of Anthropology, University of Montana and are represented in Appendix I.

Field investigations were conducted in October 1985 by Connie Moore and Jim Duran. Principal investigator for the project is Paul Anderson. The analysis and evaluation of the Ridge Top Howler ring site (24CH556) was done by Gene Munson, archeologist. The prehistory outline of project area is by Lynn Fredlund, archeologist.

All field notes, photographs and supportive information resulting from the cultural resource fieldwork will be maintained at the office of GCM Services, Inc., Butte, Montana.

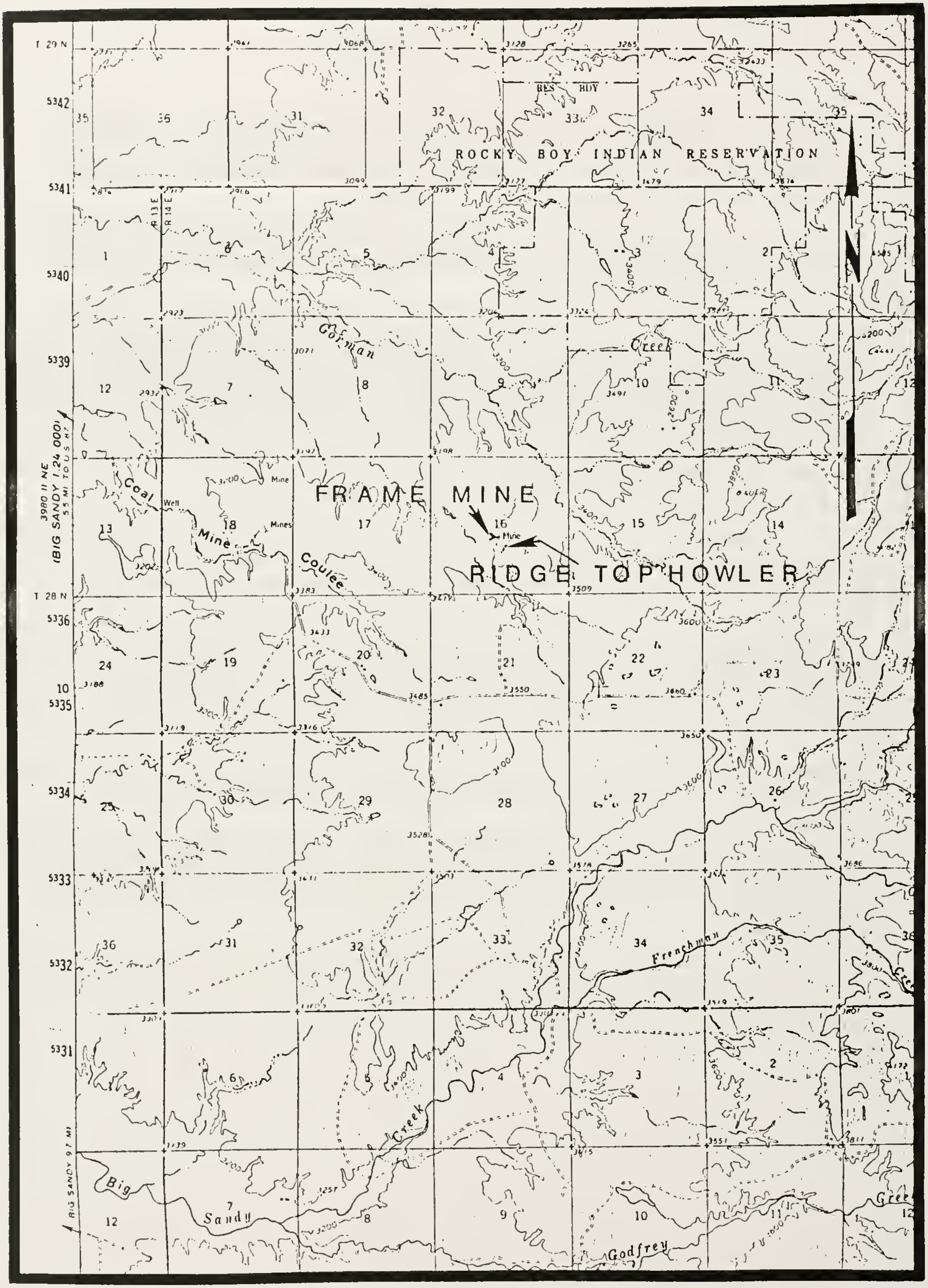

Figure 1. Site map of project area. USGS Centennial Mountain, Mont. 1959 1:62,500

LEGAL DESCRIPTION OF PROJECT SITES

Frame Mine: NE1/4 NE1/4 SW1/4 Section 16, T28N R14E.

Ridge Top Howler Ring Site: SW1/4 NW1/4 SE1/4 Section 16, T28N R14E.

METHODOLOGY

The project area was carefully examined through a pedestrian inventory following standard archeological survey procedures. These pedestrian surveys are designed to provide the most complete coverage of an area possible. Undisturbed areas were systematically examined for possible prehistoric activities. However, large areas have been disturbed by mining operations and had there been any prehistoric cultural materials they would have long since been buried or destroyed.

The survey is designed to meet all legal requirements of the National Historic Preservation Act 1980 Amendments by providing all necessary data to allow agency review for National Register of Historic Places (NRHP) eligibility and a determination of the effect of the proposed action.

All sites located are recorded on standard site forms and are assigned a site number by the state site files office at the University of Montana under the trinomial system of the Smithsonian Institution. Each site is examined and measured and a sketch map is drawn showing the location of artifacts cultural features and/or structures and their relationship to natural features within the site area.

Collection of artifacts are limited to diagnostic or patterned tools in the case of prehistoric sites or selected artifacts on historic sites which might aid in dating the site.

Subsurface testing is conducted in order to establish the presence or absence of buried cultural materials. The need for testing on prehistoric sites is determined on a site by site basis at the discretion of the project director. Testing of historic sites is generally dependent on prefieldwork review of the literature which might indicate the presence of significant features or structures.

Each site is photographed in black and white negative and color positive film and each structure on historic sites is photographed to show all significant aspects of the site.

Prior to the initiation of fieldwork the state site files at the University of Montana, Montana Historical Society's Historic Preservation Office files, and the Montana Fish and Game Commission's Historic Sites Compendium were searched for previously recorded sites in the area. The Bureau of Land Management's records division in Billings, Montana was consulted for relevant GLO Plat maps, historic survey plat maps and historical indexes showing site ownership and other historical features in the vicinity of the sites.

The Historic Sites Compendium and the state site files revealed no sites within the vicinity of the Frame mine and Ridge Top Howler ring site in Chouteau County.

The Historic Sites Compendium rates Chouteau county as having a high potential for future archeological sites. The area would also be expected to contain historic homestead sites as well as other abandoned coal mines. No previously recorded sites will be impacted by the current Department of State Lands abandoned mines reclamation program.

In compiling the background information for abandoned mine sites it is often the case that documentary evidence is non-existent or sketchy at best. Few written records were kept at some of the mines and little notice was given to the smaller mines by either the government or the local newspapers. In many cases, the major sources of information are from local informants who owned, worked in or knew of the mines. While this information is invaluable - and in some cases the only source available - given the length of time that has passed since many of these mines were in operation, it is understandable that some of the data and dates on the sites might not be exact.

GENERAL FEATURES AND PHYSIOGRAPHY OF THE PROJECT AREA

The project area lies in the Great Plains province, which extends from the Rocky Mountain front eastward. In this part of Montana the plains are broken by numerous isolated mountain ranges, one of which, the Bearpaw Mountains, lies partly within the Big Sandy field and extends eastward for a distance of about 40 miles. The remainder of the field is an elevated, somewhat dissected plain. Locally badlands are developed, being especially prominent along Missouri River in the southwestern part of the area. There the river is bordered by vertical sandstone cliffs 75 to 100 feet high known as the "stone walls," which are sculptured by weathering into many curious and picturesque forms. Another modification of the prevailing type of topography occurs in the northwestern part where a broad, flat alluvial valley, the preglacial channel of Missouri River, forms a marked con-with the other topographic features.

The area is drained by branches of Missouri River. Most of the streams are small and enter that river directly, but some of them flow into Milk River, which joins the Missouri about 160 miles farther east. The more important tributaries of Missouri River are Eagle Creek, Sheep Coulee, Alkali Coulee, and Little Sandy Creek; those of Milk River are Big Sandy and Gorman creeks. There is an interesting adjustment of drainage in the western part of the area, where Big Sandy and Little Sandy creeks are diverted almost at right angles from the westward courses. Big Sandy Creek on entering the abandoned channel of Missouri River follows it northward to Milk River, whereas Little Sandy Creek on entering this same channel turns toward the south just west of the area mapped and flows to the present channel of the Missouri. In this old channel the divide separating Big and Little Sandy creeks is so low that it is scarcely perceptible to the eye, but it is formed by a terminal moraine that marks the southernmost extent of the last advance of the ice sheet (Bowen 1914a:68).

Climate

The area's climate is characterized by extremes of bitterly cold winters and short but hot summers. Day-to-day weather patterns are highly variable being shaped by such factors as topography, sun exposure, precipitation, temperature and prevailing winds. The warm "chinook" winds are a frequent cold season phenomenon. Temperatures during the winter can fall to 40 or 50 below zero F with an average of 40 days of 0° F or colder. Summer temperatures are generally warm with an average of 26 days a year where the temperature is 90°F or higher. Seasonal transitions can be very rapid. Average precipitation for the area varies between 9 to 14 inches per year with the usual wet season comining in May or June.

Vegetation

Vegetation in the Big Sandy coal field generally falls within the Northern Grassland zone with large areas under cultivation for wheat and hay. Wild species of prairie grasses include: needle and thread, blue grama, western wheatgrass, june-the open range areas but cottonwood, willow and underbrush are found along the Milk River and its larger tributaries while pine trees grow throughout the higher elevations of the Bearpaw Mountains.

Geology

The general geological history of the northern plains region which includes the Big Sandy and Milk River coal fields is summarized by Ruebelmann and based on Perry (1962) as follows:

> Beginning over 500 million years ago, sedimentary beds were deposited on basement rocks by a succession of shallow seas which inundated the land and resulted in the formation of limestones, shales, and sandstones. The various isolated, igneous dome structures appeared about 65 million years ago when the late Mesozoic-early Cenozoic orogeny of the Northern Rocky Mountains uplifted much of the surrounding plains. During the Quaternary (late Cenozoic) Period, continenal glaciation covered much of the northern part of the region resulting in subdued landscapes and deposition of sand and gravel (Perry 1962). Throughout the geologic history of the area, erosion has been active in degrading and changing the surface of the region.
>
> The geological formations consist of nearly horizontal beds of sedimentary rocks about 5,000 feet thick (Perry 1962). Exceptions to this are the intrusive igneous rocks located within the mountainous areas where the sedimentary rocks have been sharply tilted by uplifts and subsequently eroded by wind and water action. The amount of the sedimentary beds exposed at the surface in any particular area depends on erosion and uplift. The youngest beds are located out on the plains where little uplift and erosion has occurred. The oldest beds outcrop in the mountainous areas where erosion and faulting have exposed the uplifted younger beds. Thus, in the lowlands of the region, the Cenozoic period gravels and late Mesozoic period shales or sandstones occur on the surface, while early Mesozoic Period and Paleozoic Period formations outcrop in the highlands (Ruebelmann 1982:5).

CULTURAL BACKGROUND

Prehistory of the Project Area

Human occupation of the Northwestern Plains can be documented for the past 12,000 years. Archeological resources are rich and widespread in this area. Major excavation of several bison kill sites and occupation sites has occurred. The most important initial research in the Northwestern Plains was done by William Mulloy. In the late 1930s Mulloy directed the excavations of Pictograph Cave, a multi-component rockshelter near Billings, Montana. Utilizing data from this site and others, Mulloy (1958) developed a cultural chronological system for the Northwestern Plains that has been widely accepted and utilized. Recently, Frison (1978) has modified Mulloy's chronological system to a certain degree and Reeves (1983) refined it. Ruebelmann (1980a) has proposed a prehistoric settlement subsistence model for the glaciated prairie region of northern Montana. The pattern of settlement is described as "herd nomadism". Specifically, this refers to groups of hunters whose subsistence strategy and location of settlement areas is intimately tied to and associated with the behaviour of large bison herds on which hunters depended. This model is most applicable to the chronological periods starting with the Pelican Lake Phase of the Late Plains Archaic Period and ending with the Old Woman's Phase of the Late Prehistoric Period. For this time period sites can be classified into four functional types: 1) habitation, 2) procurement, 3) industrial, and 4) ritual. These are based on specific features and cultural material observed: stone circles, stone cairns, hearths, lithic scatters/cobble testing sites, bison kills, burials, and petroforms.

Numerous reconnaissance surveys and excavations have been carried out in Montana and the prairie provinces of Canada. Projects by amateurs and professionals which have provided significant interpretive information on the prehistory of northern Montana are discussed. The Milk River Archeological Society, active for many years, examined many private collections, located numerous archeological sites, and test excavated several of the sites. Early surveys include Kehoe's (1954 and 1960) investigations on the Blackfeet reservation, Miller's (1963) reconnaissance of the Tiber Reservoir Basin and Mallory's (1963) inventory of the Missouri River Breaks area. Wedel (1951) and Kehoe (1959) dealt with topical studies of Northwestern Plains ceramics. Hurt (1963) in review of bison kill sites in the Northern Plains discussed several kill sites in north central Montana.

Leslie Davis (1965 and 1966) has dealt with topical research problems in north central Montana. Davis and Stallcop (1965 and 1966) have published reports dealing with excavations at: 1) the Keaster Site (24PH401), a stratified, Pelican Lake bison kill and occupation site in the Missouri Breaks area; and 2) the Wahkpa Chu'gn Site (24HL101), a multi-component bison kill site in the Milk River valley of north central Montana. Keyser (1979) discussed bison procurement patterns during the Late Prehistoric period based on sites around the Fresno Reservoir. Lahren (1979), Davis (1975), Professional Analysts (Deaver and Aaberg 1977) and Steere (1980) conducted extensive inventories of lands north of Malta. Ruebelmann (1980b) has reported on the Henry Smith Site (24PH794) located in the breaks area of the Milk River Valley near Malta, Montana. The Henry Smith Site is a multi-component Avonlea Phase bison kill and butchering area with three or four occupations.

Historic Background of the General Project Area

The region of the project area first became an official part of the United States in 1802 with the Louisiana Purchase. A few years later the general area was first explored by the Lewis and Clark Expedition in 1805 and 1806 when they traveled up and down the Missouri River. During the westward journey, Lewis noted the appearance of one of the regions major resources. On April 22, 1805 he wrote in his journal:

> Coal or carbonated wood pumice stone lava and other mineral appearances still continue. The coal appears to be of better quality; I exposed a specimen of it to the fire and found that it birnt [sic] tolerably well, it affored but little flame or smoke, but produced a hot and lasting fire (Devoto 1953:98).

The exploitation of this resource was still some 80 years in the future but immediately following the Lewis and Clark Expedition there was an influx of white Americans in search of another of the region's main resources: furs. The fur trade was a major economic activity in the area from 1806 to approximately 1850. Most of the early trappers worked individually or in small groups. The large "brigade" type trapping groups were developed during the 1820s and 1830s. The fur trappers and traders explored most of the tributaries of the Missouri River, including the Milk River. In the 1840s and 1850s several small trading posts were built and operated for a short period of time along the Milk River and near the mouth of the Milk River. The fur trade died out during the 1850s chiefly because of the depletion of the beaver population but also because of a decline in popularity of the beaver hat and increased competition from the textile industry (Toole 1959; Larpenteur 1962).

The beaver fur trade was followed by the buffalo robe trade. Initially this involved trading with Indian groups for buffalo robes. Two small trading posts which dealt primarily in buffalo robes were built in the late 1860s. Fort Browning was located near the Milk River in the vicinity of present-day town of Dodson while Fort Tournay was located on Frenchman Creek about 25 miles north of the Milk River (Bertino 1976; Davis 1975). The discovery of tanning techniques in 1871 which made it feasible to make buffalo skins into leather greatly increased the demand for hides. To meet the demand the buffalo robe industry changed from a small scale operation to one of systematic wholesale extermination of the buffalo herds by professional hunters. By 1883 some 13 million of the shaggy beasts had been slaughtered leaving only about 200 buffalo left throughout the west. So many bones were left on the Great Plains that a temporary but profitable industry developed where the bones were collected and sold as a phosphate source for fertilizer (Malone and Roeder 1976).

The extermination of the bison along with the intervention of the United State military ended Indian resistance to white encroachment. Treaties were signed whereby the Indians agreed to live on reservations which, from their inception, began to shrink in size. In 1874, the Gros Ventres, Assiniboine and Blackfeet were given lands north of the Missouri and Marias Rivrs as their reservation. White pressure for the land started immediately and by the middle of the 1880s the United States government had ceded most of this land away from the Indians.

In 1887 the Dawes Act, which divided Indian land into allotments, further hastened the process. During this period Fort Assinniboine was established six miles southwest of present-day Havre. The fort was in existence from 1879 to 1911 and troops stationed there helped patrol the Milk River country. Later it evolved into a regimental training fort (Fish and Game Commission 1975).

Two other historic sites within the general vicinity of the project area which date from this turbulent period are the Chief Joseph Battleground and the original Fort Belknap Agency. The battleground, located 16 miles south of Chinook, was the site of the final battle of the last major Indian-White war when Chief Joseph and the Nez Perce surrendered to Col. Nelson A. Miles on October 5, 1877. The original Fort Belknap Agency located 1-1/2 miles west of Chinook was occupied from 1872-1888 and was instrumental in maintaining peaceful relations with the Atsina (Gros Ventre) Indians during this troubled period. The agency moved to its present location four miles southeast of Harlem in 1888 (Fish and Game Commission 1975).

By the 1880s cattle ranching was a major industry in northern Montana. Cattle and sheep ranching had started at small ranches in the southwestern part of the state to serve the rapidly growing mining camps. However, in the 1870s the increased local and national demand for beef resulted in cattlemen expanding to the north, east and northeast. Montana had what seemed to be an unlimited open range. In the 1880s large well-funded, out-of-state cattle operations began to run herds on the free range with local Montana stockmen. The development of large herds, overgrazing and the deadly winter of 1886-1887 resulted in financial disaster for the cattle industry. In the aftermath of this disaster, open range methods were changed with the trend towards the creation of large ranching empires. The owners of four ranches - the Phillips, Coburn, Matador and Phelps - at one point controlled a cattle range which stretched from Glasgow to Havre and from the Missouri River to the Canadian border. By the 1890s sheepranching had also become a major industry (Fletcher 1960).

The Milk River valley has been an important transporation route from the 1850s to the present. The area was first officially traversed by the Stevens Expedition in 1853, the first of four such groups sent out by the government to survey possible transcontinental railroad routes. In the 1860s gold discoveries in southwestern Montana led to increased movement through the region. Prospectors traveled up the Missouri and also forged new routes such as the Fisk Trail. The route established by Captain James Fisk in 1862 was to provide an easy wagon road from St. Paul which would connect with the Mullan Road at Fort Benton. The road ran along the north side of the Milk River and passed within the vicinity of the project area. Fisk led a second expedition in 1866 with a train of 120 wagons, 250 men and 50 women and children. The route had proved to be a good one but yet was never heavily used. (Cushman 1973; Fish and Game Commission (1975).

The Milk River Valley began to develop as a region of small homesteads and small towns during the 1880s with the arrival of the Great Northern Railroad. The driving force in this undertaking was James J. Hill (for whom Hill County is named) who started to promote the concept of a route through the Northern Plains following a visit to the area in 1882. The main obstacle was obtaining government permission to build through Indian lands in northcentral Montana. In 1887 permission was granted and in an unprecedented flurry of track laying, Hill pushed the line (then called the St. Paul, Minneapolis and Manitoba Company) from Minot, North Dakota to Helena, Montana in a little over seven months (Hill County Bicentennial Commission 1976).

The Great Northern was the one major railroad line which was not subsidized by massive government land grants. In order to make the line profitable, Hill conducted a persuasive campaign to lure settlers to the area. The well-financed promotional campaign received added support from local and state boosters (Billington 1960). Favorable weather conditions, improved dry land farming techniques and the availability of cheap or free land led to a homesteading boom in the Milk River valley during the first two decades of the twentieth century. The towns of Cypress (near the present town of Big Sandy), Chinook, Harlem, Malta and Havre (originally called Bull Hook Bottoms) were founded or experienced their greatest period of growth. The homesteading boom ended in the 1920s due to increasing drought and declining farm prices. Many homesteaders lost their land during the 1920s and·1930s and left the area. Those who survivied consolidated farms into larger units and the region's population and economy stabilized at somewhat it present size and character.

During the boom period at the turn of the century one industry was envisioned as the basis for a large scale industrial development for the region. The area's coal resources were seen to be the easily mined, cheap fuel which would result in Havre even becoming a possible rival to Butte or Great Falls. The coal banks around Havre and Chinook were seen as inexhaustable and containing the finest quality coal to be found. It was also believed that the coal could be mined with greater ease and safety than any mine in the state. It was, however, a case of grandiose expectations followed by a more modest - yet still significant - reality (The Havre Plaindealer Oct. 2, 1909).

Small coal mines were established in the area with the first settlement in order to provide fuel for domestic needs. The Chinook Opinion on May 8, 1890 mentions four mines around Chinook which were in operation while the Havre Plaindealer on December 19, 1903 states that there were seven mines working around Havre which employed about 60 men and brought in $70,000 to the local economy during the previous year plus another $25,000 paid by the government for coal shipped to Assinniboine.

The missing ingredient for large-scale development of the area's coal fields was sufficient capital to build the necessary facilities for a major coal operation. In 1907 local business men were given a tour of the new Havre Coal Company (formerly the Havre Fuel Company) mine just north of Havre. The businessmen were impressed and outside capital was invested. Surface facilities at the mine were greatly expanded and a narrow-gauge electric railway was built from the mine head to the Great Northern tracks at Havre. The Great Northern offered assistance of its bridge building crews for the bridge across the Milk River which was reportedly built in a record three days. Everything appeared favorable for large-scale development: the mine was dry so water pumps were not needed, little timbering was required, the mine was gas free so mine ventilation was not a problem, coal was in great demand and prices were at a premium, and the mine was working a coal field estimated to have nine million tons, giving the mine a life expectancy of some 20 years (Hill County Bicentennial Commission May 1976).

The coal itself was said to be:

> . . . the highest grade of domestic fuel that is produced in the northwestern Rocky Mountain slope and will find ready sale in any competitive market it enters. It is jet black and lustrous in appearance. . . the fuel lights easily and burns brightly, it lasts well and makes continued and intense heat. There is no soot, iron or sulphur in the coal, and in these has a considerable advantage over most of western coals" (The Havre Plaindealer Oct. 2, 1909).

The mine never achieved the initial expectation that it would become ". . . one of the largest and most constant producers of the western country" (The Havre Plaindealer Oct. 2, 1909). The reason was simple: the coal, in spite of the glowing descriptions of it in the local newspapers, was a sub-bituminous type that was not suitable for use by the railroads or industry. The local investors and boosters would have been dismayed to read the more prosaic description of the coal's quality by Leon Pepperberg in 1908 where he states:

> ...the Milk River field is high in moisture and slacks rapidly on exposure, it can not be shipped great distances in uncovered cars. The rapid disintegration of the coal when burned, together with its low specific gravity, make it a poor railroad fuel with engine grates of the present pattern and the strong drafts of the locomotive, as much of the finely-divided coal would be lost through the grate bars and the stack (Pepperberg 1910:107).

The area's mines, however, did play a significant role in the economy and development of the Milk River valley. The Havre Coal Company mine furnished most of the fuel needs for Havre while the Milk River Coal company supplied much of the coal consumed by Chinook. This was no small item since the fuel needs of businesses, offices and homes were substantial in this area during the winter. During the autumn about a thousand tons of coal a day were delivered to Havre. Large buildings such as the courthouse or the hospital burned anywhere from six to nine tons of coal a day. Many miners and wagon drivers were kept employed and numerous small wagon mines were kept in operation to supply the domestic fuel needs of the region. The extent of this wagon mine industry can be seen from the following partial list of mines which were either mentioned or had an advertisement in the local newspapers from 1890 through the 1930s:

Yampen Coal
Richardson Bros.
Huntely Coal
A.G. Staton
Oliver St. Germain Coal
Auld & Lamey Coal
Clark Bros. Coal
Stringfellow
Ben Richardson Coal
Wm. Shearer Coal
Smedegor, Shrauger & Smith Coal
Anderson & Burke Coal
Klondike Coal
Big Six Coal
Klein & Mattae Coal Dealers
John Lindahl Coal
Gilt Edge Coal
A. S. Lohman
Black Coulee
Johnson Miller
Matheson & Shearer Coal
R. B. Snedecar Coal
Dolph Stocklin
E. V. Hauser
Electric
Brown

M. J. Kearney Coal
H. F. St. John
Hesser & Varney Coal
Black Diamond Coal
McCrea Bros. Coal
Flannagan Coal
H. C. Ervin Coal Co.
Chinook Coal Co.
Jack Lomas
Anderson Fifer
Bragg Gutosky
Heeter
Barrott's
Banks & Severn
Pauly & Wickizer
Stevens & Gilbert
O'Hanlon
State Coal
Matheson
Kerr
Tumbler
Leabo
Schean

There were undoubtedly numerous other small wagon mines which provided coal for one or just a few familes and would have never been mentioned. Although most of these mines have vanished without a trace and were not of great significance by themselves, combined they were instrumental in making possible the settlement of the area. Until the late 1920s there was virtually no other cheap and practical fuel source available and for an area such as this where long and harsh winters are the rule this could be a crucial factor in determining whether development would occur at all.

By the 1930s most of the area's mines had closed although a few like the Milk River Mine and the Rader Mine continued to operate through the 1960s. Many of the mines closed because they ran out of good quality coal. The Havre Coal Company mine is an example of this. When it shut down in the mid 1920s it did so because it had mined out the coal to a point where it was no longer economically feasible to continue operating. Much of the coal in the field is in thin lenticular seams with a high percentage of bone and slack impurities. Many of the smaller mines north of Havre were forced to close because they encountered areas of this type of low-grade coal. By this time cheap alternative energy sources such as natural gas and oil were becoming available. Finally, by the 1930s underground coal mining was becoming too inefficient and uneconomical to compete with the developing strip mining industry in southeastern Montana. In 1930 the Milk River Coal Field produced only 12,017 tons which averaged 1.92 tons per-man per-day which was the lowest in the state. By comparison, the open pit mine at Colstrip produced 1,181,000 tons for an average of 48 tons per-man per-day. F. G. Tryon and W.H. Young state: "this is probably the cheapest energy measured in terms of human labor, produced at any coal mine in North America" (Turner et al. 1933:17). There was no way small mines like those around Havre and Chinook could compete with this new technology. For three or four decades, however, the coal mines in the Milk River and Big Sandy coal fields were a vital factor in the founding and early development of the northcentral region of Montana.

Site Narratives

Site: Frame Mine 24CH557

Location: NE1/4 NE1/4 SW1/4, T28N R14E Section 16 Area: 480,000 m^2

Elevation: 1024 m (3360 ft)

Description: The site consists of the remnants of a small coal mine in the foothills on the west side of the Bear Paw Mountains (Figure 2). The hillside site shows considerable evidence of mining activities over a large area. Among the remains of the mine are a tipple and ore bin (Figure 3), numerous foundations and depressions, several collapsed structures (Figure 4) the remains of a ventilation fan housing (Figure 5), the body of a 1920s era auto, adit openings and miscellaneous mining debris. The site is located directly below a southwest/northeast running ridge on a bench overlooking an upper tributary of Gorman Creek. The hilly terrain has stands of pine trees amidst the grass-covered benches and rocky ridges.

Structures and Cultural Materials: Features on the site include:

Feature 1. A tipple and ore bin constructed of wood beams and sawed boards. The structure rests on a rock foundation. The chutes were lined with tin. A road passes under the upper (SE) end where trucks were loaded while tramway tracks run to the lower (NW) end. The upper portion of the tipple consists of a rectangular structure measuring 5 m x 7.6 m with a gable roof and a brick chimney. The entire tipple is 15 m long. The remnants of the tramway from the adit run into the upper portion of the tipple.

Feature 2. A partially open adit entrance.

Feature 3. A collapsed structure, probably a shop, measuring 4.5 m x 7.2 m. Pistons and other automotive parts litter the floor and a considerable amount of debris is scattered throughout the area in front of the structure.

Feature 4. A closed adit located in a small drainage on the hillside.

Feature 5. A depression which was the site of a small structure although no foundations were evident.

Feature 6. A depression from a structure just east of feature 5.

Feature 7. A depression from a structure with no foundation remains.

Feature 8. Another depression with no foundation remains.

Feature 9. A concrete foundation with square concrete slabs inside and vertical rebar in the slabs. There is an entrance on the east and west ends. On the east side there is a stone retaining wall just below a road which passes by the east side. Wood beams and other debris can be found inside the foundation which measures 4.5 m x 6.4 m.

Feature 10. A depression from a structure with debris inside including wood beams, metal stakes, shelves, a door, a metal grate, three-hole bricks and just outside the depression there is a stove with the name "Dakotah Hot Blast No. 150, Farwell, Ozmun, Kirk and Co., St. Paul, Minn." The depression measures 4.9 m x 5.9 m.

Feature 11. A collapsed structure which has a board floor. No foundation material could be seen. Debris included round headed nails, purple glass, tin cans and an aluminum pot. The structure measured 3.3 m x 4.7 m.

Feature 12. Depression measuring 3.3 m x 6.1 m with associated debris including wood beams, boards, tires, round headed nails and tin cans. One Montana license plate "1941, 51-T376" and a stove marked "Newark Stove Works, Chicago" were also observed.

Feature 13. A depression measuring 4 m x 4.7 m which contains a cut metal drum, brown glass and other scattered debris.

Feature 14. A depression measuring 2 m x 2.6 m which contains wood debris.

Feature 15. A rock foundation with cement and mortar which measures 5 m x 5.6 m. A small 3 m x 3 m waste coal pile and scattered debris of brick, glass, china pieces and beer bottles are around the foundation.

Feature 16. A depression measuring 1.5 m x 1.5 m with metal debris inside.

Feature 17. An old auto body from the 1920s with a 1941 Montana license plate #2-8016. The body has wood paneling on the inside but the motor has been removed. Glass, and car parts are scattered around the auto.

Feature 18. A depression measuring 3 m x 5 m with boards, bed springs, metal debris, metal drum and a pot belly stove inside. Nearby is a 1941 Montana license plate #19-1809.

Feature 19. An open adit.

Feature 20. A shack measuring 2.5 m x 3.7 m. The structure is of frame construction with two windows and a door. The hole for the stove is at the southwest end. The roof is constructed of boards while the foundation is made of rocks. Inside there is a shelf and cupboard, the box spring from a double bed and a board floor. Scattered about the outside is debris of clear glass bottles, tin cans, nails and china.

Feature 21. An open air shaft with the remains of the ventilation fan over the opening. The large six-blade fan is mounted on a wooden, sled-like base measuring 1.7 m x 4 m while the fan itself measures 1.2 m in diameter. An engine block and wood debris are adjacent to the air shaft.

Feature 22. A collapsed structure with boards, round headed nails, tin cans, a stove pipe, brown and clear glass and a metal drum. A stove was inside and marked with "Kalamazoo Royal Stove, Kalamazoo, Mich." Also inside was a large milk container with "Gopher" marked on the handle.

Feature 23. A dump containing metal debris and many whiskey and beer bottles.

Feature 24. A dump containing assorted car parts.

Feature 25. A large metal tractor wheel and two Montana license plates 1938 #19-1672 and 1941 #19-1413.

Feature 26. A second metal tractor wheel with part of the axle attached.

Feature 27. A depression with a stone retaining wall on the hillside. Debris in the depression includes a bed spring, china pieces, glass, metal and a pot belly stove with the name "Round Oak, Estate of P.D. Beckwith, Dowagiac, Mich."

Feature 28. A remnant of the tramway which connected the tipple with the adit entrances.

Feature 29. A possible collapsed adit.

The site is littered with a large scatter of miscellanous debris including: stove parts, bottles, cans, lumber and metal.

Historical Information: The Frame mine was a relatively late development in the Big Sandy coal field compared to the nearby Mackton mine which operated from around 1905 through the 1920s and the Mack/Nygard mines which operated from about 1895 through the 1940s. The Frame mine was first opened in the early 1930s on a school section by Archie ("Scotty") Frame. Within a short time there were ten to a dozen houses at the mine for the miners as well as the tipple and other surface facilities. The mine operated the year around although production was curtailed during the winter when it was difficult to get wagons or trucks up to the mine. Ray Holland and his family lived at the mine during the winter and a small amount of production was maintained by Holland.

The mine had extensive underground workings and used timber bracing rather than the more usual room and pillar method where part of the coal seam itself was left in place as support. This practice, however, led to the death of an unknown miner around 1940. He was said to have been an experienced miner but at one point did not take the time to properly timber the drift he was working in and a collapse of part of the roof killed him. Shortly after the accident the mine closed. Frame sold the property to Andrew Trunk but the mine was never reopened.

While the mine was in production it primarily sold the coal locally for domestic use and some was donated to local churches. Part of the production, however, was shipped in the company's own trucks for sale to communities along the highline. The coal from the Big Sandy field was of a better quality than that of the Havre district in the Milk River field, having a higher heat value and lower moisture content making it possible for coal from the Frame mine to compete with the local mines in the

Havre district. However, Big Sandy coal was slightly lower in quality than that of the Great Falls field which precluded sale to that market. Due to the limited markets; the distance from the markets; the somewhat limited extent of the coal field and the partings in the coal seams of bone and shale, the Big Sandy coal field never developed as a major producing field even though the coal was a good high-grade sub-bituminous fuel (Brown 1985; Bowen 1914; Pepperberg 1910; Mack 1986).

Condition of site: The site is in poor condition. Only the tipple and a small shack remain standing on the site and they are both in poor condition.

National Register Statement: Although the general layout of the Frame Mine site can be discerned from the ruins and debris, the physical integrity of the site has been lost by the destruction of most of the mine structures. Only a small shack and the tipple remain standing. The tipple is in poor condition and is in imminent danger of falling over. Since less than a majority of the property remains intact the original identity has been lost and it is unlikely that significant additional information could be gained from the site; therefore, it is not recommended as eligible for nomination to the National Register of Historic Places.

Impacts: The Department of State Lands plans to close the mine openings, remove hazardous structures and either reclaim or remove coal waste areas.

Recommendations: The site has been recorded, mapped and photographed and no further work on the site is recommended.

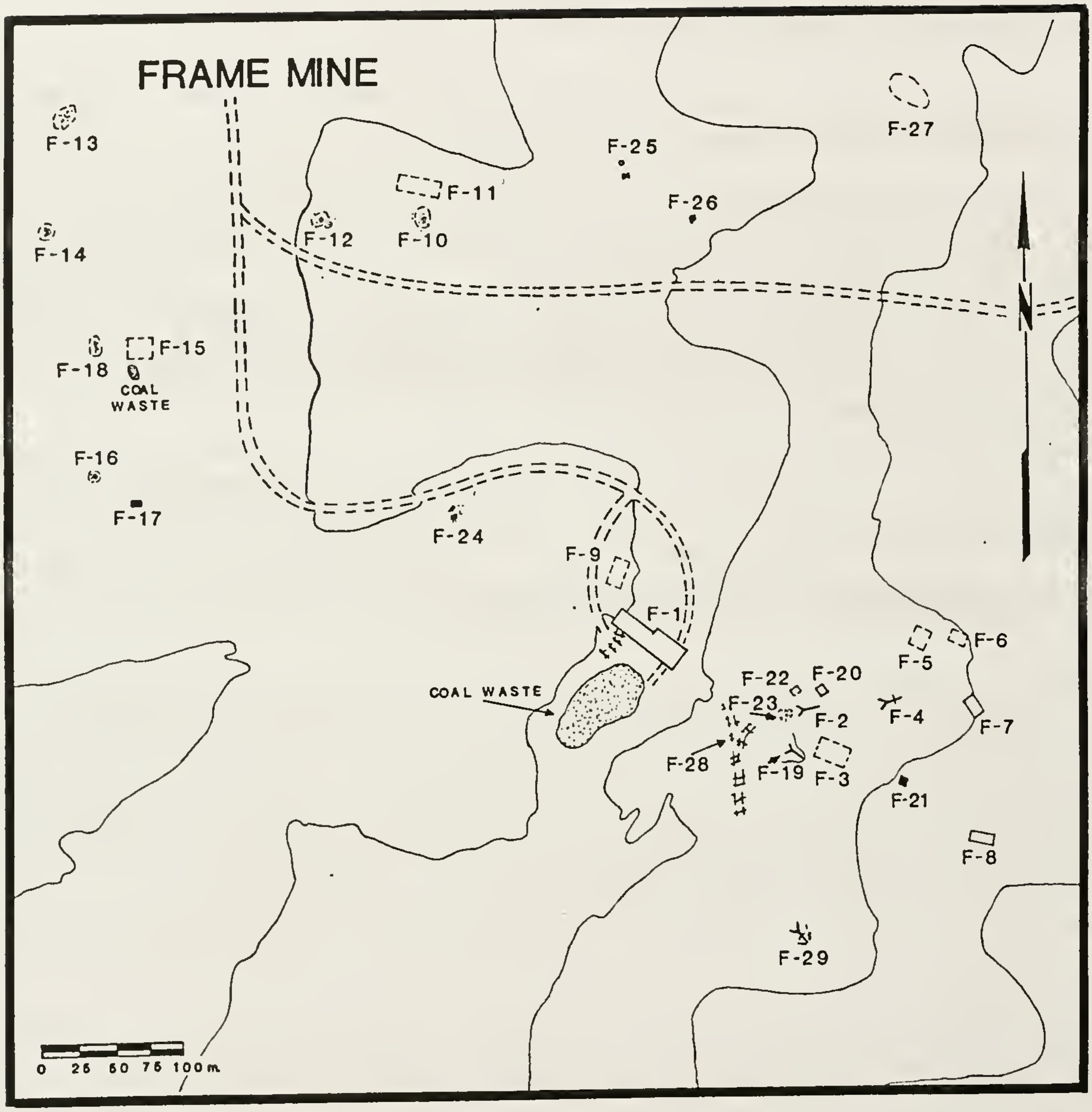

Figure 2. Site map for the Frame Mine.

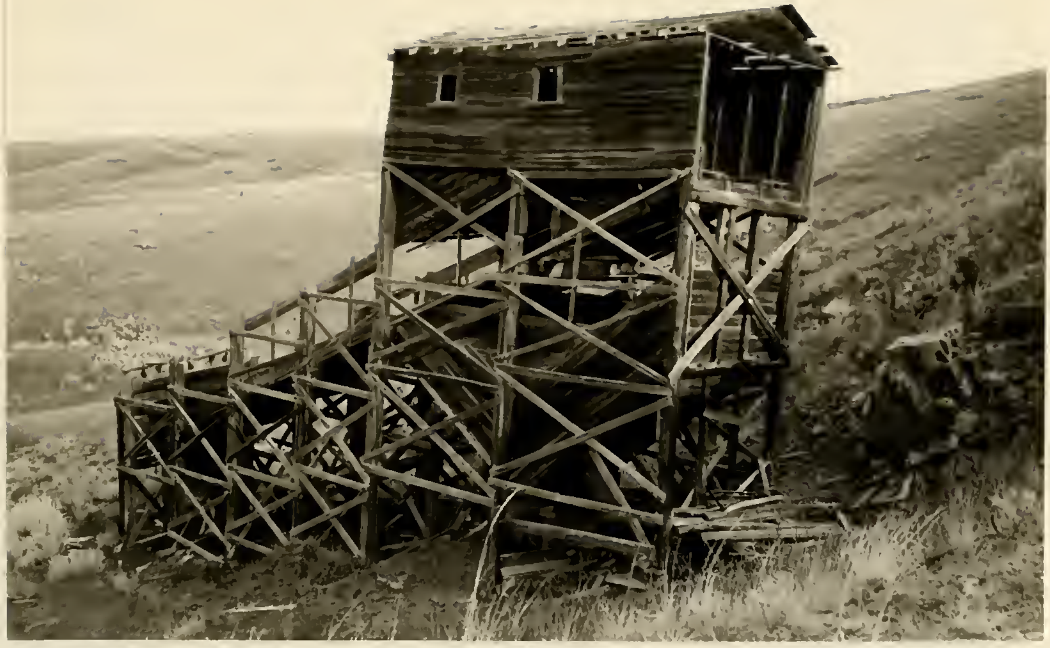

Figure 3. The frame mine tipple (view to north).

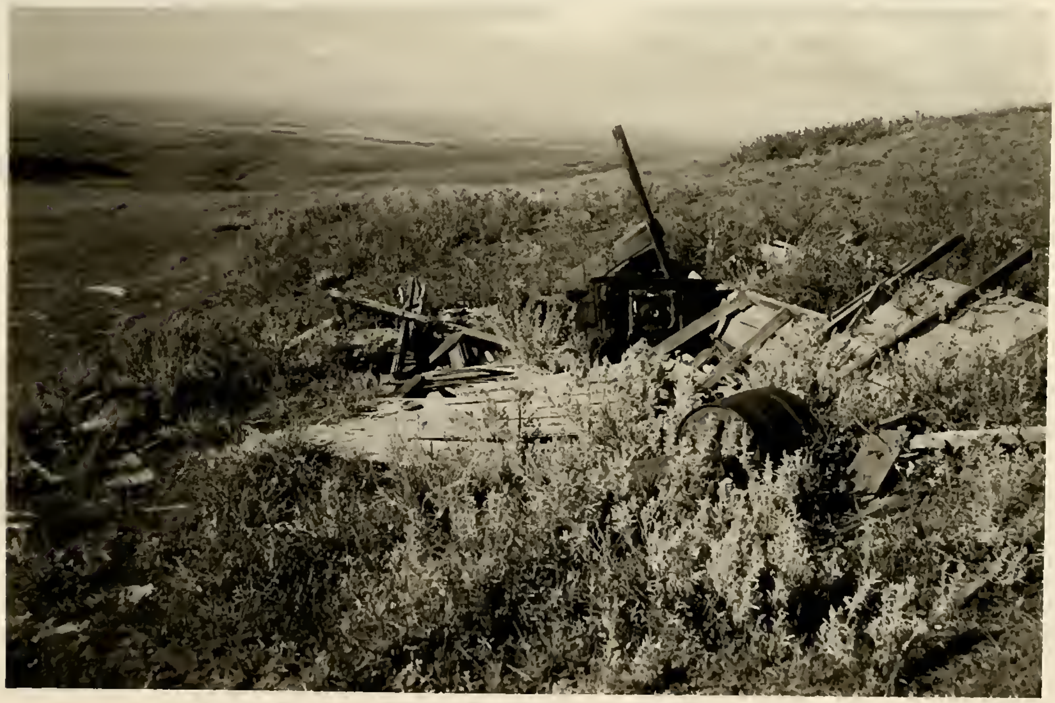

Figure 4. Collapsed structures (feature 22) at the Frame mine (view to northwest).

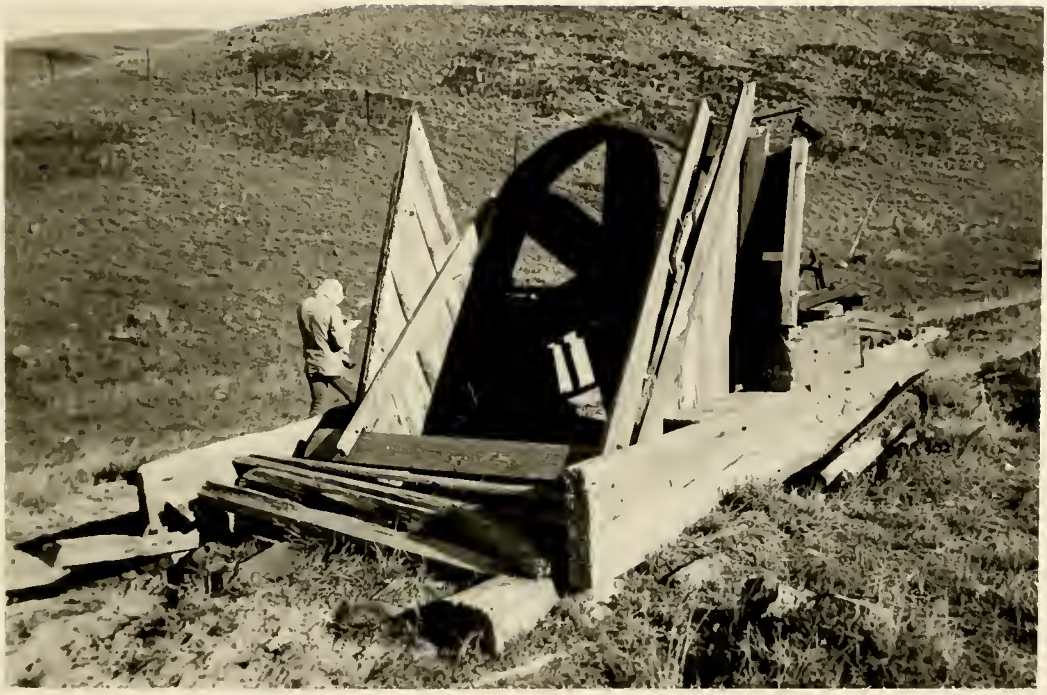

Figure 5. Air shaft and fan housing at the Frame mine (view to northeast).

Site: Ridge Top Howler - 24CH656

Location: SW1/4 NW1/4 SE1/4, T28N R14E Section 16 Area: 3540 m^2

Elevation: 1061 m (3480 ft)

Description: The site consists of 19 stone rings and a cairn of rocks situated on a ridge top (Figures 6 and 7). The rings follow the ridge edge. They range in size from around 3.5 m in diameter to almost 6 m. They are generally circular to ovoid, however, one is rectangular measuring 12.7 m x 6 m. The cairn measures 1 m x 1 m and is two levels high. Approximately 40 rocks are in the cairn. The local glacial boulders and basalts were used in all of the features. Local and regional vegetation consists of sagebrush, prickly pear cactus, Rhus, rosa sp., creeping juniper, grasses

Structures and Cultural Materials: Features on the site include:

Feature 1*. A ring measuring 5.5 m x 5 m**.

Feature 2. A ring measuring 4.8 m x 5.3 m.

Feature 3. A ring measuring 5.5 m x 4.7 m.

Feature 4. A ring measuring 4.4 m x 5.1 m.

Feature 7 A ring measuring 5.5 m x 5.7 m.

Feature 8. A ring measuring 4.4 m x 3.5 m.

Feature 9. A ring measuring 5.9 m x 5.6 m.

Feature 10. A ring measuring 4 m x 4 m.

Feature 11. A ring measuring 4.8 m x 6.3 m.

Feature 12. a ring measuring 3.7 m x 4.4 m.

Feature 13. A ring measuring 7.2 m x 7.6 m.

Feature 14. A rectangular rock alignment measuring 12.7 m x 6 m.

Feature 15. A ring measuring 5.4 m x 5.2 m.

Feature 16. A ring measuring 4.8 m x 6.6 m.

Feature 17. A ring measuring 5.6 m x 5.5 m.

Feature 18. A ring measuring 3.3 m x 3.9 m.

Feature 19. A ring measuring 5.5 m x 6 m.

Feature 20. A rock cairn measuring 1 m x 1 m.

*All measurements inside diameters
**First measurement is north/south and second is east/west

Bifacial spalls, flakes, pecked river cobble, FCR were observed on the site. Lithics were made of quartzite, basalt, and the FCR was quartzite. The pecked cobble was made of quartzite. It was pecked only on one side.

Condition of site: The site is in good condition.

National Register Statement: 24CH556 consists of a wide range of stone ring sizes. There are three pairs of rings. Each pair is connected sharing a portion of the stone ring. One of the pairs is made up of a fairly circular ring measuring 5.4 m north/south x 5.2 m east/west and a ring that is rectangular measuring 12.7 m north/south x 6 m east/west. The two 1 m x 1 m tests at the site showed that a limited amount of buried cultural remains can be expected. The fire-cracked rock from the test in Feature 13 suggests that a hearth may be located in the ring. The general lack of soil development makes it likely that the charcoal in this alleged hearth has been removed by wind and water erosion. This is true for any hearths that may be located at the site. For this reason, it is unlikely that a radiocarbon date can be obtained at the site. The quantity of lithic materials was quite sparse with only about 100 items exposed on the surface. No temporally diagnostic materials were located. From the stand point of artifacts the site is not likely to yield further information in the local prehistory. However, the rectangular ring (Feature 14), the three pairs of adjoining rings, and the overall wide range of ring sizes and characteristics may provide significant information on intrasite patterning of rings. This information can be obtained by a thorough surficial recording of the features and their spatial relationship to each other. The site is recommended as potentially eligible for placement on the National Register of Historic Places.

Impacts: The site will not be impacted by reclamation of the adjacent mine site.

Recommendations: The site has been mapped, photographed and recorded. No further work is recommended at this time.

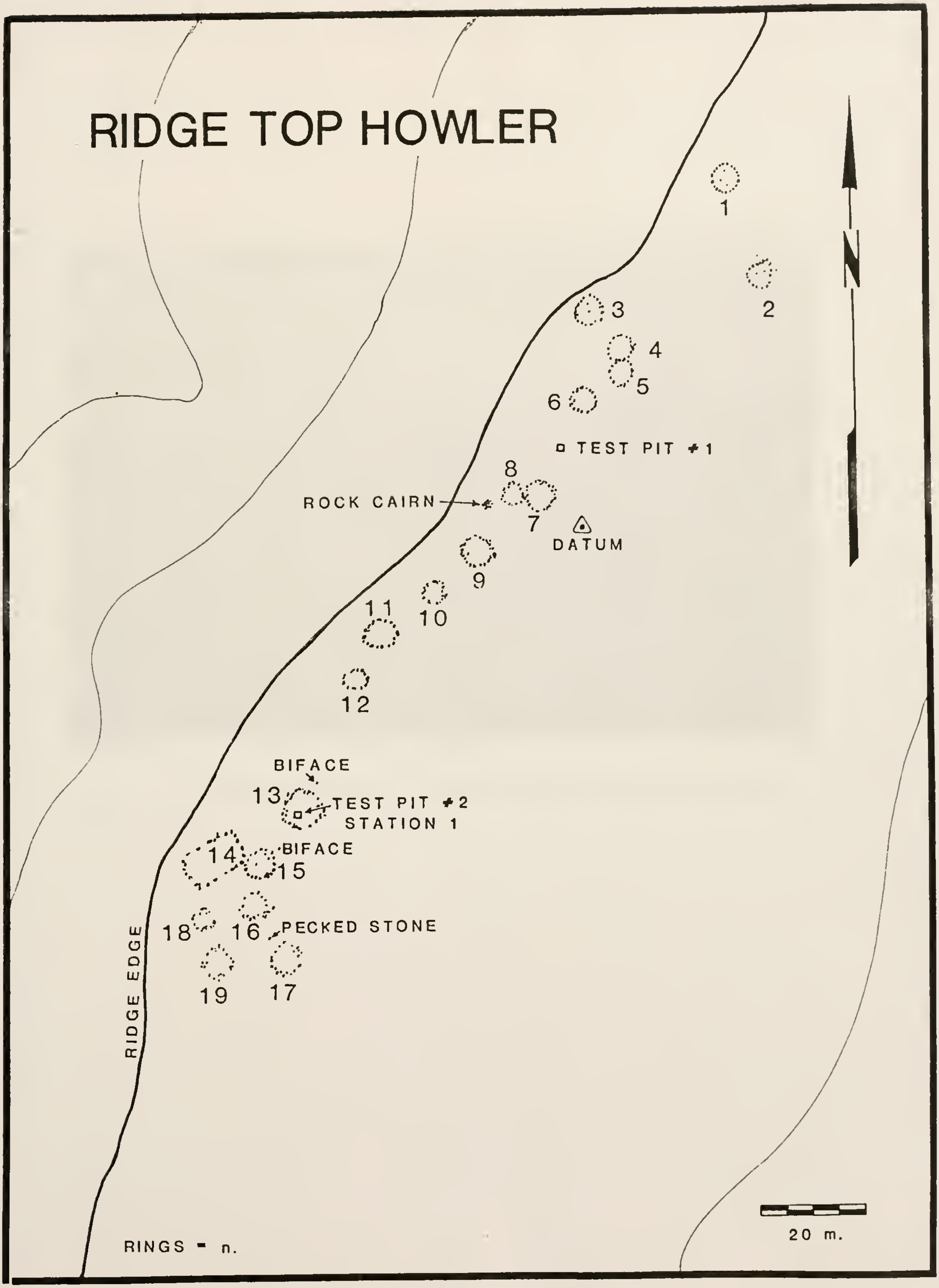

Figure 6. Map of the Ridge Top Howler Ring Site.

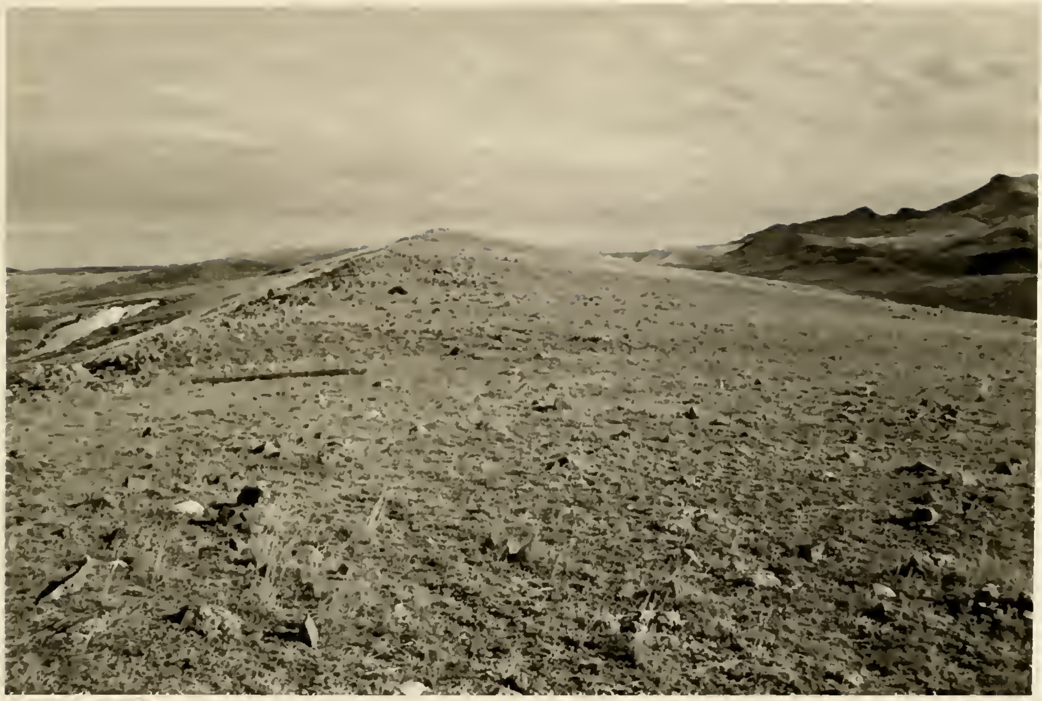

Figure 7. View of the Ridge Top Howler ring site looking north.

SUMMARY AND RECOMMENDATIONS

For this supplementary report the Frame mine (24CH557) and the Ridge Top Howler ring site (24CH556) were examined, recorded, mapped and photographed. Historic records for information on the mine were researched and local informants were interviewed. At the ring site subsurface testing was conducted and each ring was carefully measured and plotted from a datum point.

There was no published information on the Frame mine. Only somewhat sketchy material on the mine was obtained from local informants. This is not unusual for this type of small commercial coal mining operation. The mine was in operation for a relatively brief period of less than a decade during the 1930s. The mine was operated in a conventional fashion with no apparent technological inovations or unique methods used in the mine. The only slightly unusual aspect of the mine operation was a greater reliance on timbering for support in the mine rather than the more common practice of the room and pillar method. Although the mine was undoubtedly a needed source of jobs and cheap fuel during the hard-pressed 1930s, the mine was not a major factor in the local economy since only about a dozen miners were employed for about half of the year and coal was readily available from other mines in the area.

The Frame mine site is not recommended as eligible for listing on the National Register of Historic Places. The physical integrity of the site has been eroded by the destruction of most of the mine structures. Only a small shack and the tipple remain standing. The tipple is in poor condition and is in imminent danger of collapse. It is unlikely that further information could be obtained from additional work on the site.

The Ridge Top Howler ring site is recommended as potentially eligible for listing on the National Register of Historic Places on the basis that further significant information might be provided by the site. Although the site is not likely to yield furter information based on artifact recovery; the rectangular ring (feature 14), the three pairs of adjoining rings and the overall wide range of ring sizes and characteristics might provide significant information on intrasite patterning of rings.

The Frame mine has been examined, recorded, mapped and photographed and no further work is recommended. The Ridge Top Howler ring site will not be impacted by reclamation plans of the Department of State Lands but in the event an impact to the site was necessary it is recommended that a thorough surficial recording of the features and their spatial relationship to each other be undertaken.

The mine openings and coal waste dumps at the Frame mine are obvious and serious threats to public safety and health while the tipple is in such a weakened condition that it is a potential danger due to the fact it could easily collapse. Therefore, it is recommended that the Department be allowed to proceed on schedule with reclamation plans which would include removal of the tipple, the closing of mine openings and either the reclamation and/or removal of coal waste dumps. If any subsurface prehistoric or historic cultural materials are revealed during the reclamation work, the office of GCM Services, Inc., in Butte and the Montana Historic Preservation Office in Helea, should be notified immediately.

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APPENDIX I:

Site Forms

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 1 Locational Information

1.1 Site number:
24CH557

1.2 Site name/field designation:
Frame Mine

1.3 County:
Choteau

1.4 Township/range:

T 28N R 14E NE 1/4 NE 1/4 SW 1/4 of Section 16

1.5 UTM:

Zone 12 579250 Easting 5336950 Northing

1.6 Site type:
historical coal mine

1.7 Recording status & comments:
Site has been recorded, mapped and photographed.

1.8 Administrative/surface ownership:
State of Montana

1.9 Mineral ownership:

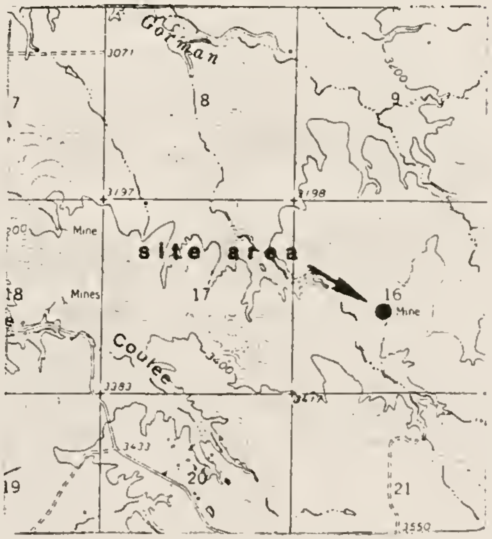
1.10 Project name:
Department of State Lands
Abandoned Mines Reclamation
Program

1.11 General narrative description of site:
The site consists of the remnants of a small coal mine in the foothills on the west side of the Bear Paw Mountains. The hillside site shows considerable evidence of mining activities over a large area. Among the remains of the mine are a tipple and ore bin, numerous foundations and depressions, several collapsed structures, the remains of a ventilation fan housing, the body of a 1920s era auto, adit openings and miscellaneous mining debris.

1.12 Map reference:
USGS Centennial Mountain, Mont.
1959 - 1:62,500

1.13 City/town: [x] vicinity of
Big Sandy, Montana

1.14 Access to site:
Take U.S. Highway 87 about 1-1/2 miles northeast from Big Sandy. Turn east onto gravel road in Section 5 & travel 3-1/2 miles. Turn south onto another gravel road & follow it along Coal Mine Coulee to Section 21. At the eastern edge of the section turn north & pass through a gate. Follow the road across another deep drainage. Turn left at the next fence & follow the fenceline northwest. The road will pass over a ridge & continue down the other side to the site area.



D86-M

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24CH557

2.1 Geographic setting:	2.2 Elevation: 1024 m 3360 ft.

The site is located directly below a southwest/northeast running ridge on a bench overlooking an upper tributary of Gorman Creek. The hilly terrain has stands of pine trees amidst the grass-covered benches and rocky ridges.

2.3 View/aspect:
open

2.4 Major drainage: Gorman Creek	2.5 Minor drainage(s):

2.6 Water sources:

	Names	Distance	Ele. Change	Type & seasonality
a.	southwestern tributary of Gorman Creek			perennial
b.				

2.7 Regional vegetation:
foothill grasslands with sagebrush, Rhus, ground juniper, yucca, prickly pear, grasses and pine trees

2.8 Local vegetation:
Same as above except there are no pines on the site area.

2.9 Soils:
sandy

2.10 Surface visibility/season of survey:
good/autumn

2.11 Other environmental factors pertaining to site location:
The site area overlies an area of the Fort Union coal formation.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24CH557

3.1 Condition of site:
The site is in poor condition. Only the tipple and a small shack remain standing on the site and they are both in poor condition.

3.2 Site significance (NRHP):
Although the general layout of the Frame Mine site can be discerned from the ruins and debris, the physical integrity of the site has been lost by the destruction of most of the mine structures. Only a small shack and the tipple remain standing. The tipple is in poor condition and is in imminent danger of falling over. Since less than a majority of the property remains intact the original identity has been lost and it is unlikely that significant additional information could be gained from the site; therefore, it is not recommended as eligible for nomination to the National Register of Historic Places.

3.3 Impacts:
The Department of State Lands plans to close the mine openings, remove hazardous structures and either reclaim or remove coal waste areas.

3.4 Recommendations:
The site has been recorded, mapped and photographed and no further work on the site is recommended.

3.5 Site located by: Connie Moore and Jim Duran Date: 10/22/85	3.6 Site recorded by: Connie Moore & Jim Duran Date: 10/23/85	3.7 Revisions by: Paul Anderson Date: 12/20/85

3.8 Permit No.

3.9 Publications concerning site:
Brown, C.F., The Big Sandy Coal Field, Choteau County, Montana. USGS Bulletin 541, Government Printing Office, Washington, D.C., 1914.
Pepperberg, Leon J., The Milk River Coal Field, Montana. USGS Bulletin 381, Government Printing Office, Washington, D.C., 1910.
Anderson, Paul, Cultural Resource Inventory and Evaluation of the Mack/Nygard, Larsen/Hubbs, Ayars/Jackson/Hoppe/Alcott/Gussenhoven/Wieck Complex, Havre Coal Mining Company, Milk River/Perkins, Cummings, Burns and Rader/Dehl/Radkop Mines in the Big Sandy and Milk River Coal Fields of Montana for the Montana Department of State Lands by GCM Services, Inc., Butte, 1984.

3.10 Artifact repository: none collected	3.11 Field notes/maps/photo repository: GCM Services, Inc. 1003 S. Montana St. Butte, MT 59702

3.12 Photos & accession No:

No.	Description	View
proof #1		
photos #1-31		

MONTANA CULTURAL RESOURCE INVENTORY
Form No. 5. Description of Historic Sites

Site number: 24CH557

5.1 Site dimensions, how determined:
480,000 m^2

5.2 Features: see attached

5.3 Artifacts (observed, collected):
The site is littered with a large scatter of miscellanous debris including: stove parts, bottles, cans, lumber and metal.

5.4 Historical information and evaluation:
The Frame mine was a relatively late development in the Big Sandy coal field compared to the nearby Mackton mine which operated from around 1905 through the 1920s and the Mack/Nygard mines which operated from about 1895 through the 1940s. The Frame mine was first opened in the early 1930s on a school section by Archie ("Scotty") Frame. Within a short time there were ten to a dozen houses at the mine for the miners as well as the tipple and other surface facilities. The mine operated the year around although production was curtailed during the winter when it was difficult to get wagons or trucks up to the mine. Ray Holland and his family lived at the mine during the winter and a small amount of production was maintained by Holland.

The mine had extensive underground workings and used timber bracing rather than the more usual room and pillar method where part of the coal seam itself was left in place as support. This practice, however, led to the death of an unknown miner around 1940. He was said to have been an experienced miner but at one point did not take the time to properly timber the drift he was working in and a collapse of part of the roof killed him. Shortly after the accident the mine closed. Frame sold the property to Andrew Trunk but the mine was never reopened.

While the mine was in production it primarily sold the coal locally for domestic use and some was donated to local churches. Part of the production, however, was shipped in the company's own trucks for sale to communities along the highline. The coal from the Big Sandy field was of a better quality than that of the Havre district in the Mil River field, having a higher heat value and lower moisture content making it possible for coal from the Frame mine to compete with the local mines in the Havre district. However, Big Sandy coal was slightly lower in quality than that of the Great Falls field which precluded sale to that market. Due to the limited markets; the distance from the markets; the somewhat limited extent of the coal field and the partings in the coal seams of bone and shale, the Big Sandy coal field never developed as a major producing field even though the coal was a good high-grade sub-bituminous fuel (Brown 1985; Bowen 1914; Pepperberg 1910; Mack 1986).

5.5 References

Dorothy Brown, personal interview, December 13, 1985, Great Falls, Montana
Cecil Mack, personal interview, January 6, 1986, Big Sandy, Montana

5.6 Subsurface testing, results, methods, etc.
none

#19-1413. 26) A second metal tractor wheel with part of the axle attached.
27) A depression with a stone retaining wall on the hillside. Debris in the depression includes a bed spring, china pieces, glass, metal and a pot belly stove with the name "Round Oak, Estate of P.D. Beckwith, Dowagiac, Mich."
28) A remnant of the tramway which connected the tipple with the adit entrances.
29) A possible collapsed adit.

5.2 Features:

1) A tipple and ore bin constructed of wood beams and sawed boards. The structure rests on a rock foundation. The chutes were lined with tin. A road passes under the upper (SE) end where trucks were loaded while tramway tracks run to the lower (NW) end. The upper portion of the tipple consists of a rectangular structure measuring 5 m x 7.6 m with a gable roof and a brick chimney. The entire tipple is 15 m long. The remnants of the tramway from the adit run into the upper portion of the tipple. 2) A partially open adit entrance. 3) A collapsed structure, probably a shop, measuring 4.5 m x 7.2 m. Pistons and other automotive parts litter the floor and a considerable amount of debris is scattered throughout the area in front of the structure. 4) A closed adit located in a small drainage on the hillside. 5) A depression which was the site of a small structure although no foundations were evident. 6) A depression from a structure just east of feature 5.
8) Another depression from a structure with no foundation remains.
7) A depression from a structure with no foundation remains. 9) A concrete foundation with square concrete slabs inside and vertical rebar in the slabs. There is an entrance on the east and west ends. On the east side there is a stone retaining wall just below a road which passes by the east side. Wood beams and other debris can be found inside the foundation which measures 4.5 m x 6.4 m. 10) A depression from a structure with debris inside including wood beams, metal stakes, shelves, a door, a metal grate, three-hole bricks and just outside the depression there is a stove with the name "Dakotah Hot Blast No. 150, Farwell, Ozmun, Kirk and Co., St. Paul, Minn." The depression measures 4.9 m x 5.9 m. 11) A collapsed structure which has a board floor. No foundation material could be seen. Debris included round headed nails, purple glass, tin cans and an aluminum pot. The structure measured 3.3 m x 4.7 m. 12) A depression measuring 3.3 m x 6.1 m with associated debris including wood beams, boards, tires, round headed nails and tin cans. One Montana license plate "1941, 51-T376" and a stove marked "Newark Stove Works, Chicago" were also observed. 13) A depression measuring 4 m x 4.7 m which contains a cut metal drum, brown glass and other scattered debris. 14) A depression measuring 2 m x 2.6 m which contains wood debris. 15) A rock foundation with cement and mortar which measures 5 m x 5.6 m. A small 3 m x 3 m waste coal pile and scattered debris of brick, glass, china pieces and beer bottles are around the foundation.
16) A depression measuring 1.5 m x 1.5 m with metal debris inside. 17) An old auto body from the 1920s with a 1941 Montana license plate #2-8016. The body has wood paneling on the inside but the motor has been removed. Glass, and car parts are scattered around the auto. 18) A depression measuring 3 m x 5 m with boards, bed springs, metal debris, metal drum and a pot belly stove inside. Nearby is a 1941 Montana license plate #19-1809. 19) An open adit. 20) A shack measuring 2.5 m x 3.7 m. The structure is of frame construction with two windows and a door. The hole for the stove is at the southwest end. The roof is constructed of boards while the foundation is made of rocks. Inside there is a shelf and cupboard, the box spring from a double bed and a board floor. Scattered about the outside is debris of clear glass bottles, tin cans, nails and china. 21) An open air shaft with the remains of the ventilation fan over the opening. The large six-blade fan is mounted on a wooden, sled-like base measuring 1.7 m x 4 m while the fan itself measures 1.2 m in diameter. An engine block and wood debris are adjacent to the air shaft. 22) A collapsed structure with boards, round headed nails, tin cans, a stove pipe, brown and clear glass and a metal drum. A stove was inside and marked with "Kalamazoo Royal Stove, Kalamazoo, Mich." Also inside was a large milk container with "Gopher" marked on the handle. 23) A dump containing metal debris and many whiskey and beer bottles. 24) A dump containing assorted car parts. 25) A large metal tractor wheel and two Montana license plates 1938 #19-1672 and 1941

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 1 Locational Information

1.1 Site number: 24CH556

1.2 Site name/field designation: Ridge Top Howler

1.3 County: Choteau

1.4 Township/range:

T 28N R 14E SW 1/4 NW 1/4 SE 1/4 of Section 16

1.5 UTM:

Zone 12 5 79 400 Easting 53 36 850 Northing

1.6 Site type: prehistoric camp/ stone ring

1.7 Recording status & comments: photographed, mapped, recorded

1.8 Administrative/surface ownership: private

1.9 Mineral ownership:

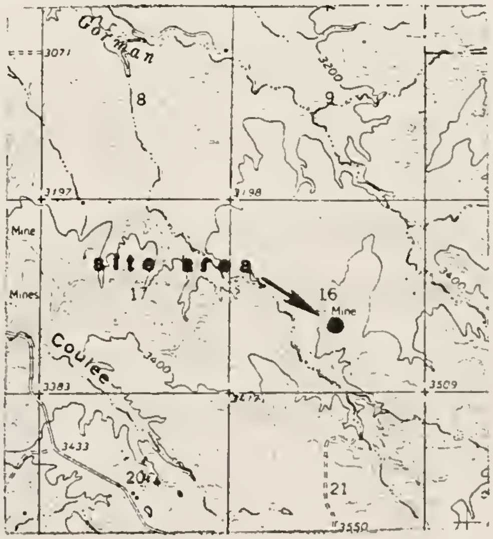
1.10 Project name: Department of State Lands Abandoned Mines

1.11 General narrative description of site:
The site consists of 19 stone rings and a cairn of rocks situated on a ridge top. The rings follow the ridge edge. They range in size from around 3.5 m in diameter to almost 6 m. They are generally circular to ovoid, however, one is rectangular measuring 12.7 m x 6 m. The cairn measures 1 m x 1 m and is two levels high. Approximately 40 rocks are in the cairn. The local glacial boulders and basalts were used in all of the features.

1.12 Map reference: Centennial Mountain Quad 1959

1.13 City/town: Big Sandy ☒ vicinity of

1.14 Access to site:
From Big Sandy drive northeast on Highway 87 for about 1.5 miles. In Section 5 turn east onto a gravel road and follow it for 3.5 miles. Turn south onto another gravel road & follow it along Coal Mine Coulee to Section 21. At the eastern extent of this section turn north & pass through a gate just east of a coulee. Follow the road across another deep drainage. Turn left at the next gate & follow the fence line NW. The road will cross over the northern end of a ridge & then turn SW. It goes down to the mine area from there.



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MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number:24CH556

2.1 Geographic setting:

2.2 Elevation: 1061 m 3480 ft.

The site is situated on a SW-NE trending ridge. The ridge falls of abruptly on the west side and slopes off gently on the east side. Gorman Creek and one of its tributaries run on either side of the site area. Rock was readily available on the ridge top where basalt was outcropping. Also there were glacial cobble and boulders on the site.

2.3 View/aspect:
View is to the northwest.

2.4 Major drainage:
Gorman Creek

2.5 Minor drainage(s):

2.6 Water sources:

	Names	Distance	Ele. Change	Type & seasonality
a.	Gorman Creek	300 m	160 m	perennial
b.				

2.7 Regional vegetation:
pine, sagebrush, prickly pear, Rhus, rosa, creeping juniper, yucca, grasses

2.8 Local vegetation:

sagebrush, prickly pear cactus, Rhus, rosa sp., creeping juniper, grasses

2.9 Soils:

clayey and sandy loam

2.10 Surface visibility/season of survey:

80% fall survey

2.11 Other environmental factors pertaining to site location:

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24CH556

3.1 Condition of site: good

3.2 Site significance (NRHP):
24CH556 consists of a wide range of stone ring sizes. There are three pairs of rings. Each pair is connected sharing a portion of the stone ring. One of the pairs is made up of a fairly circular ring measuring 5.4 m north/south x 5.2 m east/west and a ring that is rectangular measuring 12.7 m north/south x 6 m east/west. The two 1 m x 1 m tests at the site showed that a limited amount of buried cultural remains can be expected. The fire-cracked rock from the test in Feature 13 suggests that a hearth may be located in the ring. The general lack of soil development makes it likely that the charcoal in this alleged hearth has been removed by wind and water erosion. This is true for any hearths that may be located at the site. For this reason, it is unlikely that a radiocarbon date can be obtained at the site. The quantity of lithic materials was quite sparse with only about 100 items exposed on the surface. No temporally diagnostic materials were located. From the stand point of artifacts the site is not likely to yield further information in the local prehistory. However, the rectangular ring (Feature 14), the three pairs of adjoining rings, and the overall wide range of ring sizes and characteristics may provide significant information on intrasite patterning of rings. This information can be obtained by a thorough surficial recording of the features and their spatial relationship to each other. The site is recommended as potentially eligible for placement on the National Register of Historic Places.

3.3 Impacts:
Will not be impacted by reclamation of the mine site.

3.4 Recommendations:
The site has been mapped, photographed and recorded. No further work is recommended at this time.

3.5 Site located by: Connie Moore Date: 10/23/85	3.6 Site recorded by: Connie Moore Jim Duran Date: 10/24/85	3.7 Revisions by: Gene Munson Date: 1/27/86

3.8 Permit No.

3.9 Publications concerning site:
none

3.10 Artifact repository: none collected	3.11 Field notes/maps/photo repository: GCM Services, Inc. 1003 S. Montana St. Butte, MT 59702

3.12 Photos & accession No:

No.	Description	View
12	overall view	N
13	overall view	S
14	overall view	S

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 4 Description of Prehistoric Sites

Site number: 24CH556

4.1 Site dimensions, shape, how dimensions determined:
177 x 20 m

3540 m^2

4.2 Features:

Feature 1*: A ring measuring 5.5 m x 5 m**. Feature 2 is a ring measuring 4.8 m x 5.3 m. Feature 3 - a ring measuring 5.5 m x 4.7 m. Feature 4 - a ring measuring 4.4 m x 5.1 m. Feature 7 - a ring measuring 5.5 m x 5.7 m. Feature 8 - a ring measuring 4.4 m x 3.5 m. Feature 9 - a ring measuring 5.9 m x 5.6 m. Feature 10 - a ring measuring 4 m x 4 m. Feature 11 - a ring measuring 4.8 m x 6.3 m. Feature 12 - a ring measuring 3.7 m x 4.4 m. Feature 13 - a ring measuring 7.2 m x 7.6 m. Feature 14 - a rectangular rock alignment measuring 12.7 m x 6 m. Feature 15 - a ring measuring 5.4 m x 5.2 m. Feature 16 - a ring measuring 4.8 m x 6.6 m. Feature 17 - a ring measuring 5.6 m x 5.5 m. Feature 18 - a ring measuring 3.3 m x 3.9 m. Feature 19 - a ring measuring 5.5 m x 6 m. Feature 20 - a rock cairn measuring 1 m x 1 m.

☐ Attachments

4.3 Artifacts (Observed, collected):

Bifacial spalls, flakes, pecked river cobble, FCR. Lithics were made of quartzite, basalt, and the FCR was quartzite. The pecked cobble was made of quartzite. It was pecked only on one side.

☐ Attachments

4.4 Cultural/temporal affiliation. Justify.
not known

4.5 Functional inference. Justify.

campsite

4.6 Subsurface testing results, methods, stratigraphy, etc.:

Two 1 m x 1 m test pits were dug on this site. One was in the center of Ring 13, TP #1. The other was in between the two groups of rings, TP #2. Each pit was dug in 5 cm levels. TP #1 was dug down to 10 cm b.s. from 0-5 cm b.s. One maroon quartzite flake spall and 4 pieces quartzite FCR were found. From 5-10 cm b.s. nothing was found. TP #2 was dug to 10 cm b.s. Nothing was found in this test unit. Soil was a brown clay loam with gravel intermixed from surface to 10+ cm below surface.

☐ Attachments

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*All measurements inside diameters

**First measurement is north/south and second is east/west